

**CLAIMS**

WHAT IS CLAIMED IS:

- 1 1. A system for optimizing network resources for  
2 conference calls, comprising:  
3 endpoints that request the conference calls;  
4 multi-point control units for supporting  
5 conference calls between three or more  
6 endpoints;  
7 a resource scheduler for receiving the  
8 conference call requests; and  
9 a gatekeeper communicatively coupled to the  
10 resource scheduler for managing the network  
11 resources;
- 1 2. The system of claim 1, wherein the gatekeeper  
2 includes a connectivity policy module for maintaining  
3 network policies.
- 1 3. The system of claim 2, wherein the network policies  
2 include network bandwidth management policies.
- 1 4. The system of claim 2, wherein the gatekeeper manages  
2 the network resources based on the conference call  
3 requests and the network policies.
- 1 5. The system of claim 4, wherein the gatekeeper  
2 includes a bandwidth module communicatively coupled  
3 to the connectivity policy module for determining  
4 network bandwidth availability for the conference  
5 call requests.

- 1 6. The system of claim 4, further comprising a network  
2 management system communicatively coupled to the  
3 gatekeeper to determine if dynamic cascading of the  
4 multi-point control units is required for resource  
5 optimization.
- 1 7. The system of claim 6, wherein the gatekeeper further  
2 includes a cascade optimization module for  
3 determining an optimum cascade configuration for the  
4 multi-point control units.
- 1 8. The system of claim 7, wherein if the network  
2 management system determines that dynamic cascading  
3 of the multi-point control units is required for  
4 resource optimization, then the gatekeeper determines  
5 the optimum cascade configuration for the multi-point  
6 control units.
- 1 9. A method for optimizing network resources for a  
2 conference call requested by endpoints, comprising  
3 the steps of:  
4 receiving the conference call request by a  
5 resource scheduler;  
6 accessing a connectivity policy module;  
7 determining if sufficient network resources are  
8 available to connect the  
9 conference call; and  
10 supporting the conference call between three or  
11 more endpoints with  
12 multi-point control units;
- 1 10. The method of claim 9, wherein the connectivity  
2 policy module maintains network policies.

- 1 11. The method of claim 10, wherein the connectivity  
2 policy module accesses a bandwidth module for  
3 determining available network resources.
- 1 12. The method of claim 11, wherein if sufficient network  
2 resources are available to connect the conference  
3 call, the resource scheduler schedules the conference  
4 call.
- 1 13. The method of claim 12, wherein a determination is  
2 made whether network resources are optimized by a  
3 dynamic cascading of the multi-point control units.
- 1 14. The method of claim 13, wherein if dynamic cascading  
2 of the multi-point control units is required for  
3 resource optimization, then an optimum cascade  
4 configuration for the multi-point control units is  
5 determined.

1 15. A system for optimization of network resources for a  
2 conference call, comprising:  
3 means for requesting the conference call;  
4 means for receiving the conference call request;  
5 means for accessing a connectivity policy  
6 module, the connectivity policy module having  
7 connectivity policies;  
8 means for determining available network  
9 resources;  
10 means for determining if sufficient network  
11 resources are available to connect the  
12 conference call based on connectivity  
13 policies, the conference call request, and the  
14 available network resources;  
15 means for determining whether network resources  
16 are optimized by a dynamic cascading of the  
17 multi-point control units; and  
18 means for determining an optimum cascade  
19 configuration of the multi-point control  
20 units.

- 1 16. A system for optimizing network resources for  
2 conference calls, comprising:  
3 a plurality of local area networks;  
4 a plurality of endpoints coupled to the local  
5 area networks for requesting conference calls;  
6 a plurality of multi-point control units coupled  
7 to the local area networks for supporting  
8 conference calls between three or more  
9 endpoints;  
10 a resource scheduler coupled to the local area  
11 networks for scheduling the conference calls;  
12 a gatekeeper coupled to the resource scheduler  
13 for determining an optimum cascade  
14 configuration for the multi-point control  
15 units; and  
16 a network management system coupled to the  
17 gatekeeper for determining whether dynamic  
18 cascading of the multi-point control units is  
19 required for resource optimization.
- 1 17. The system of claim 16, wherein each of the plurality  
2 of endpoints is a videoconference-enabled device.